

**Report Date:** 25 Mar 2014

**Summary Report for Individual Task  
551-88H-3507  
Direct Cargo Operations (Breakbulk)  
Status: Approved**

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DESTRUCTION NOTICE: None

**Condition:** Assigned as a Section Chief aboard a cargo vessel (breakbulk) in an operational environment, during day or night, in normal weather conditions, given a completed risk assessment, a safety briefing, an operation order/plan, ship's gear, cargo, vehicles, dunnage, tie-down equipment, and TC 4-13.17. This task should not be trained in MOPP 4.

**Standard:** Direct breakbulk cargo operations without injury to personnel or damage to equipment.

**Special Condition:** None

**Safety Level:** Low

**MOPP:** Never

<b>Task Statements</b>
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**Cue:** You are assigned as a Section Chief tasked with directing breakbulk cargo operations.

## **DANGER**

Adhere to all DANGER statements listed in the equipment or vehicle technical operator's manual applicable to this procedure. Failure to comply may result in injury to personnel or damage to equipment.

## **WARNING**

Adhere to all WARNING statements listed in the equipment or vehicle technical operator's manual applicable to this procedure. Failure to comply may result in injury to personnel or damage to equipment.

## **CAUTION**

Adhere to all CAUTION statements listed in the equipment or vehicle technical operator's manual applicable to this procedure. Failure to comply may result in injury to personnel or damage to equipment.

**Remarks:** None

**Notes:** None

## Performance Steps

### 1. Direct adherence to the rules for stowing general cargo.

Note: Breakbulk cargo covers a wide array of products and a variety of packaging formats, from individual pieces like steel slabs to unitized, bundled, flat, bagged, crated, and palletized commodities.

- a. Issue guidance directing that cargo arrives at its destination undamaged.
- b. Issue guidance directing that as much cargo as possible is stowed in the compartment of the ship.
- c. Issue guidance directing that the hold is clean before storing cargo.

Note: If hatches are not cleared, pieces of wood from broken crates may get under the pallets when they are put into stowage position. A lopsided pallet may cause the whole shipment of cargo to shift when the ship is at sea.

- d. Direct the use of dunnage only in required quantities.
- e. Direct the avoidance of cargo damage by following the instructions on labels.

Note: If it is necessary to walk on top or land drafts (loads) of cargo such as cardboard cartons, lightly-constructed cases, bags, and crates, place a layer of dunnage over cargo to protect it from damage.

### 2. Direct the maximized use of hold's carry capacity.

- a. Issue guidance directing that cargo is loaded so as to minimize broken stowage.
- b. Issue guidance directing that pre-stowage planning is conducted to ensure that cargo will fill the hold without leaving large empty spaces.
- c. Issue guidance directing the loading of cargo so as to ensure correct stowage and fit of irregularly shaped packages.
- d. Issue guidance directing the use filler cargo where empty space occurs.
- e. Issue guidance directing that cargo is nested to ensure use of space that would otherwise be wasted.
- f. Issue guidance directing the avoidance of excess use of dunnage.

### 3. Direct that all cargo is secured in accordance with prescribed procedures.

Note: The shifting of cargo during voyage results in considerable damage to the ship and cargo. To prevent this damage, cargo handlers must use proper stowage practices including the use of lashing and dunnage. Other means of securing cargo include shoring, tie-down, blocking, and bracing.

- a. Issue guidance directing that all deck cargo is lashed, in addition to being shored, blocked, and braced.
- b. Issue guidance directing that cargo stored below deck is secured with timbers firmly wedged, nailed, or lashed (chains or wire rope material).
- c. Issue guidance directing that cargo is secured when a vessel is sailing in convoy and the master is not permitted to alter course or speed to avoid rough seas or foul weather.
- d. Issue guidance directing the use of the correct type, strength, and number of lashings (see Figure 3-154).
- e. Issue guidance directing that general cargo, drummed cargo, and barreled cargo are loaded in the wings and end of the hatch.
- f. Ensure that shipment date is shown clearly on all containers.

- g. Ensure that all doors have been closed and are watertight.
  - h. Ensure that a seal has been placed on each container.
  - i. Ensure that liquids and other wet commodities are bottom-stowed to prevent leaking containers from damaging other cargo.
  - j. Ensure that cargo is segregated when needed to prevent damage by contamination.
4. Direct the use of lashing as a means for securing (see Figure 3-154).
- Note: Lashing is the means of securing vehicles and other cargo by using wire rope, chain, steel bars, and turnbuckles.
- a. Issue guidance directing that lashing materials are selected based on their availability and the type of cargo to be secured.
  - b. Issue guidance directing that all component parts of the lashing materials are of approximately equal strength.
5. Direct the proper use of dunnage.
- Note: Dunnage consists of planks and pieces of wood used to protect a vessel and its cargo. Proper stowage is impossible without carefully applied dunnage. The following standards apply:
- a. Ensure cargo does not shift or chafe.
  - b. Chock off and secure containers.
  - c. Block off broken stowage.
  - d. Fill void spaces that cannot be filled with cargo.
  - e. Protect cargo from contact with water or liquids that may get into holds.
  - f. Place the bottom layer of dunnage in the direction of the drains.
  - g. Provide air passage for effective ventilation.
  - h. Distribute weight.
  - i. Separate cargo.
6. Direct the securing of wheeled vehicles on deck.
- a. Ensure that each vehicle is placed with the engine facing forward when possible.
  - b. Ensure that each vehicle is lashed with at least four lashings.
  - c. Ensure that the chassis is shored up to take the pressure off balloon-sized tires.
  - d. Ensure that both sides and both ends of the vehicle are blocked and braced and all wheel chocks are braced.

### For Other Ships Only

Vehicle Weight	Lashing Strength	Total Number of lashings Required
Up to 5,260 lb	5,000 lb	4
Up to 10,530 lb	10,000 lb	4
Up to 14,850 lb	14,100 lb	4
Up to 17,900 lb	17,000 lb	4
Up to 36,860 lb	35,000 lb	4
Up to 73,720 lb	70,000 lb	4
Up to 147,450 lb	70,000 lb	8

### For Other Ships Only "Metric"

Vehicle Weight	Lashing Strength	Total Number of lashings Required
Up to 2,390 kg	2,250 kg	4
Up to 4,780 kg	4,550 kg	4
Up to 6,740 kg	6,400 kg	4
Up to 8,120 kg	7,700 kg	4
Up to 16,720 kg	15,900 kg	4
Up to 33,440 kg	31,750 kg	4
Up to 66,880 kg	31,750 kg	8

Note: "Other" ships are all ships except fast sealift ships.

Figure 3-154  
Load Factor Lashing Requirements for Other Ships

(Asterisks indicates a leader performance step.)

**Evaluation Guidance:** Score the Soldier GO if all performance steps are passed (P). Score the Soldier NO-GO if any performance step is failed (F). If the Soldier fails any step, show what was done wrong and how to do it correctly.

**Evaluation Preparation:** Ensure that all materials required to perform the task are available. Tell the Soldier that he/she will be evaluated on directing breakbulk cargo operations.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Directed adherence to the rules for stowing general cargo.			
2. Directed the maximized use of hold's carry capacity.			
3. Directed that all cargo was secured in accordance with prescribed procedures.			
4. Directed the use of lashing as a means for securing.			
5. Directed the proper use of dunnage.			
6. Directed the securing of wheeled vehicles on deck.			

**Supporting Reference(s):**

Step Number	Reference ID	Reference Name	Required	Primary
	TC 4-13.17	Cargo Specialist's Handbook	Yes	Yes

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

AR 200-1 delineates TRADOC responsibilities to integrate environmental requirements across DOTMLPF and ensures all training procedures, training manuals, and training doctrine includes sound environmental practices and considerations. The Army's environmental vision is to be a national leader in environmental and natural resource stewardship for present and future generations as an integral part of all Army missions. Environmental protection is never completed. Continuously be alert to ways to protect our environment and reduce waste.

Leaders must ensure that their unit has an active and strong environmental program. They must understand the laws and know what actions to take. Leaders bring focus, direction, and commitment to environmental protection. They should ensure the following environmental programs are in place and are being maintained:

- Hazardous materials program.
- Hazardous waste program.
- Hazardous communications program.
- Pollution prevention and hazardous waste minimization recycling program.
- Spill prevention and response plan program.

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination.

All operations will be performed to protect and preserve Army personnel and property against accidental loss. Procedures will provide for public safety incidental to Army operations and activities and safe and healthful workplaces, procedures, and equipment. Observe all safety and/or environment precautions regarding electricity, cable, and lines. Provide ventilation for exhaust fumes during equipment operation and use hearing protection when required IAW ARR 385-10, the Clean Air Act (CAA) and the CAA amendments, and the OSHA Hazard Communication standard.

Accidents are an unacceptable impediment to Army missions, readiness, morale, and resources. Decision makers at every level will employ risk management approaches to effectively preclude unacceptable risk to the safety of personnel and property affiliated with this task.

- (a) Take personal responsibility
- (b) Practice safe operations.
- (c) Recognize unsafe acts and conditions.
- (d) Take action to prevent accidents.
- (e) Report unsafe acts and conditions.
- (f) Work as a team.

#### Prerequisite Individual Tasks :

Task Number	Title	Proponent	Status
551-88H-3525	Locate Cargo Designated for Discharge	551 - Transportation (Individual)	Analysis
551-88H-2523	Direct Inspection of Cargo Handling Gear	551 - Transportation (Individual)	Approved

#### Supporting Individual Tasks :

Task Number	Title	Proponent	Status
551-88H-3524	Check Stowage of General Cargo at Assigned Hatch	551 - Transportation (Individual)	Analysis

#### Supported Individual Tasks :

Task Number	Title	Proponent	Status
551-88H-3530	Created from Template from 551-88H-4505	551 - Transportation (Individual)	Delete

551-88H-4503	Monitor Cargo Stowage and Securing Operations	551 - Transportation (Individual)	Approved
551-88H-3530	Interpret Data on Manifest	551 - Transportation (Individual)	Analysis
551-88H-4505	Interpret Data on Manifest	551 - Transportation (Individual)	Obsolete

**Supported Collective Tasks :**

<b>Task Number</b>	<b>Title</b>	<b>Proponent</b>	<b>Status</b>
55-2-1405	Conducts LOTS Operation to Discharge and Load RO/RO, LO/LO, and Containers	55 - Transportation (Collective)	Approved
55-2-1406	Conduct Cargo Operations to Discharge and Load Breakbulk Cargo	55 - Transportation (Collective)	Approved